

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005055**Date Inspected:** 03-Dec-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Jia**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** PMT - deck panels**Summary of Items Observed:**

Sub-assembly – Bay 1 - PMT

Caltrans Quality Assurance Inspector George Goulet (QA Inspector) monitored OBG Production Monitoring Test (PMT) #1 for deck panels DP286-001 and DP181-001 at Gantry #2. Prior to PMT #1, the magnetic particle test (MT) of the tack welds was noted on the test panel as having been performed by ZPMC MT Inspector Zhou Dong Yun. The visual inspection of tack welds and root gap was performed by ABF QC Chang Bao Qian (ABF), ZPMC CWI Li Jia (CWI), and QA Inspector. The start time for welding of PMT #1 was approximately 0016 hours on Thursday, 12/4/08 and the finish time was approximately 0041 hours. QA inspector randomly verified and documented the welding amperage, voltage and travel speed during the gas metal arc welding (GMAW) and submerged arc welding (SAW) processes, welds 1 thru 6 at the completion of both the GMAW root pass and SAW cover pass. The welds were visually inspected by ABF, CWI and QA Inspector. CWI marked locations of incomplete fusion on weld #4. However, the total for the weld was under the maximum allowed. QA inspector concurred. QA inspector witnessed ZPMC Ultrasonic Testing (UT) inspector, identified as Ma Ji Long, perform UT on each of the welds for depth of penetration and conformance. QA Inspector identified designated locations for macroetch sampling per contract requirements. The macroetch specimens were evaluated with a 7X optical comparator and a 10X optical comparator and accepted by CWI, ABF, and QA Inspector. QA Inspector observed an inclusion in specimen 3-3. However, the size was less than the 3mm maximum. All fifteen sample macros appeared to meet requirements and were noted to appear acceptable. See Caltrans U-ribs PMT Inspection Sheet, ZPMC production monitoring test plate inspection report, and Caltrans Macro Etch Log - all dated 12/4/2008 for additional information.

**Summary of Conversations:**

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## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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As noted above in Summary.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Peter Dautermann, 150-0219-9593, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Goulet,George
<b>Reviewed By:</b>	Carreon,Albert

Quality Assurance Inspector

QA Reviewer